



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,382	07/18/2003	David A. Southard	3195.1002-001	4377
21005	7590	04/13/2005	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			GIBSON, ERIC M	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 04/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,382

Applicant(s)

SOUTHARD ET AL.

Examiner

Eric M Gibson

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-15, drawn to a computer implemented method for creating minimal data representing an image, classified in class 382.
 - II. Claims 16-20, drawn to delivering weather images through satellite to an aircraft, classified in class 701, subclass 3.
2. The inventions are distinct, each from the other because of the following reasons:
 - a. Inventions I and II are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the method of delivering weather images does not require the particulars of the image formation claimed in claims 1-15. The subcombination has separate utility such as image processing.

- b. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper and further, because the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper and is hereby made final.

Art Unit: 3661

2. Applicant's election of claims 16-20 in the reply filed on 2/4/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by over Crabill et al. (US005265024A).

a. Per claim 16, Crabill teaches a computer implemented method of delivering weather data through a satellite to an aircraft (see step (c) claim 1) including automatically transmitting updated weather information to the aircraft based on the flight plan (see steps (a) and (b) claim 1).

b. Per claim 17, Crabill teaches that the updated weather data is transmitted upon detecting relevant weather (step (b) claim 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3661

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crabill et al. (US005265024A) in view of Simpson et al. (US005999882A).

a. Per claim 18, Crabill teaches a computer implemented method of delivering weather data through a satellite to an aircraft (see step (c) claim 1) including automatically transmitting updated weather information to the aircraft based on the flight plan (see steps (a) and (b) claim 1). However, Crabill does not teach determining an expected position of the aircraft based on the flight plan and updating the weather based on the expected position. Simpson teaches a method and system for providing weather information along a travel route, including determining an expected position of the aircraft based on the flight plan and updating the weather based on the expected position (column 6, lines 55-67). It would have been obvious to one of ordinary skill in the art, at the time of invention, to determine an expected position of the aircraft based

Art Unit: 3661

on the flight plan and update the weather based on the expected position in the system of Crabill, in order to specifically tailor the weather results to the individual user, as taught by Simpson.

b. Per claim 19, Crabill teaches that the update is transmitted based on a hazardous weather alert (see step (b) claim 1).

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Crabill and Simpson further in view of Meyers (US2002/0146176A1).

a. Per claim 20, the combination teaches the invention as explained in the rejection of claim 18. The combination does not teach the method of image creation including dividing a source image into a grid of cells, selecting a color for each cell corner based on sampling an area and storing an indication of the selected color in an array dependent on the co-ordinates of the cell corner in the source image. Meyers teaches a method of compact representation of a digital images that includes dividing a source image into a grid of cells, selecting a color (intensity) for each cell corner based on sampling an area and storing an indication of the selected color (intensity) in an array dependent on the co-ordinates of the cell corner in the source image (page 3, [0030] & [0031]). It would have been obvious to one of ordinary skill in the art, at the time of invention, to compress the image sent via satellite to the aircraft in the system of the combination using the method taught by Meyers, in order to reduce the image size and limit the amount of data that needs to be sent to the aircraft.


Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tu (US006014606A) teaches a cockpit weather information system. Bateman et al. (US006043756A) teaches an aircraft weather information system. Curtwright et al. (US006199015B1) teaches a map-based navigation system with overlays. Feyereisen et al. (US006289277B1) teaches interfaces for planning vehicle routes. Gremmert et al. (US2002/0039072A1) teaches an aircraft weather information system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Gibson whose telephone number is 571-272-6960. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached at (571)272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MICHAEL J. ZANELLI
PRIMARY EXAMINER